

**Amendments to the Claims:**

Claim 1 was previously cancelled. Please cancel claims 2-12, without prejudice. Please add new claims 13-23, directed to methods of metalworking lubrication and methods of electroplating.

This listing of claims replaces all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-12 (cancelled).

Claim 13 (new): A method of metalworking lubrication, comprising:

i) providing a metalworking lubricant composition, comprising

- A) at least one lubricating oil;
- B) at least one base-catalyzed branched reaction product of:
  - a) at least one compound of formula I



wherein each X group is a halogen atom or one X group is a halogen atom and two X groups represent an epoxy oxygen atom, which is attached to two adjacent carbon atoms in the  $R^1$  group to form an epoxy group, and  $R^1$  is an alkanetriyl group containing from about 3 to about 10 carbon atoms;

b) at least one compound having the formula II



wherein  $R^2$  is a substituted or unsubstituted, saturated or unsaturated, organic group having from 1 to about 36 carbon atoms; X is  $-O-$ ,  $-S-$ , or  $-NR^3-$  where  $R^3$  is hydrocarbon or a  $C_1-$

C<sub>18</sub> alkyl group; each AO group is independently an ethyleneoxy, 1,2-propyleneoxy, or 1,2-butylenoxy group, n is a number from 0 to about 200; and Y is hydrogen, or Y can be a mercapto group or an amino group or a C<sub>1</sub>-C<sub>6</sub> alkyl amino group in place of a terminal -OH group, provided that when Y is mercapto or an amino group or a C<sub>1</sub>-C<sub>6</sub> alkyl amino group, n is at least 1; and, optionally

c) a glycidyl ether and/or a glycidyl amine;

wherein the mole ratio of the linking compound a) to b) is from about 0.1:1 to about 5:1, and wherein the metalworking lubricant composition has reduced foaming properties in aqueous and non-aqueous metalworking formulations and improved lubricating and extreme pressure properties and, wherein, R<sup>2</sup> is optionally substituted with a member selected from the group consisting of mercaptan functionality, thio functionality, amine functionality, amide functionality, alcohol functionality, silicone functionality, ether functionality, and combinations thereof;

ii) applying the lubricant composition to a metal object to be worked; and

iii) subjecting the metal object to a working step select from cutting, machining, grinding, or other metal processing or metalworking, whereby the composition modifies the harmful effects of friction and/or high temperatures caused by the working.

Claim 14 (new): The method of claim 13 wherein said lubricant composition comprises from about 0.001% to about 10% by weight of the reaction product B.

Claim 15 (new): The method of claim 15 wherein said lubricant composition comprises from about 0.1% to about 3% by weight of the reaction product B.

Claim 16 (new): The method of claim 15 wherein c) is present, and comprises from about 1 to about 20 mole percent based on the moles of b).

Claim 17 (new): The method of claim 13 wherein said lubricant composition further comprises at least one additive selected from the group consisting of viscosity improvers, pour-point depressants, antioxidants, amine solvents, buffers, nonionic surfactants (other than B), corrosion inhibitors, and coupling agents.

Claim 18 (new): The method of claim 13 wherein said lubricant composition comprises from about 30% to about 90% by weight of A.

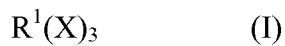
Claim 19 (new): A method of electroplating, comprising:

i) providing an aqueous electroplating composition, comprising

A) at least one metal or metalloid and ions thereof; and

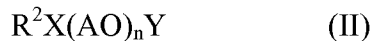
B) at least one base-catalyzed reaction product of:

a) at least one compound of formula I



wherein each X group is a halogen atom or one X group is a halogen atom and two X groups represent an epoxy oxygen atom, which is attached to two adjacent carbon atoms in the  $R^1$  group to form an epoxy group, and  $R^1$  is an alkanetriyl group containing from about 3 to about 10 carbon atoms;

b) at least one compound having the formula II



wherein  $R^2$  is a saturated or unsaturated, organic group having from 1 to about 36 carbon atoms; X is  $-O-$ ,  $-S-$ , or  $-NR^3-$  where  $R^3$  is hydrogen or a  $C_1$ - $C_{18}$  alkyl group; each AO group is independently an ethyleneoxy, 1,2-propyleneoxy, or 1,2-butyleneoxy group, n is a number from 0 to about 200; and Y is hydrogen, or Y can be a mercapto group or an amino group or a  $C_1$ - $C_6$  alkylamino group in place of a terminal  $-OH$  group,

provided that when Y is mercapto or an amino group, or a C<sub>1</sub>-C<sub>6</sub> alkylamino group, n is at least 1; and, optionally

c) a glycidyl ether and/or glycidyl amine;

wherein the mole ratio of component a) to b) is from about 0.1:1 to about 5:1, and wherein the base catalyzed reaction product is not epoxy functional and provides improved brightening and reduced foaming and, wherein, R<sup>2</sup> is optionally substituted with a member selected from the group consisting of mercaptan functionality, thio functionality, amine functionality, amide functionality, alcohol functionality, silicone functionality, ether functionality, and combinations thereof; and

ii) using said composition as the aqueous electrolyte solution in an electroplating operation.

Claim 20 (new): The method of claim 14 wherein said electroplating composition comprises from about 0.001% to about 5% by weight of the reaction product B.

Claim 21 (new): The method of claim 20 wherein said electroplating composition comprises from about 0.1% to about 3% by weight of the reaction product B.

Claim 22 (new): The method of claim 19 wherein c) is present, and comprises from about 1 to about 20 mole percent based on the moles of b).

Claim 23 (new): The method of claim 19, wherein said metal, metalloid, and ions of the composition are selected from the group consisting of zinc, nickel, copper, chromium, manganese, iron, cobalt, gallium, germanium, arsenic, selenium, ruthenium, rhodium, palladium, silver, cadmium, indium, tin, lead, bismuth, mercury, antimony, gold, platinum, brass, bronze, gold alloys, lead-tin, nickel-iron, nickel-cobalt, nickel-phosphorus, tin-nickel, tin-zinc, zinc-nickel, zinc-cobalt, zinc-iron, lead-indium, nickel-manganese, nickel-tungsten, palladium alloys, silver alloys and zinc-manganese .

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